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Ellen J. Kapinos
Ellen J. Kapinos

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Elizabeth Wang, John Wozney and Vicki Rosen
Serial No. : TBD Art Unit: TBD
Filed : Herewith Examiner: TBD
For : NOVEL BMP PRODUCTS

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Prior to examination of the above application, please amend the application as follows:

In the Specification:

Insert before the first line of the specification

This application is a continuation of USSN 08/925,779 filed September 9, 1997, which is a continuation of USSN 07/721,847 filed June 14, 1991, which is a continuation-in-part of 07/493,272 filed March 14, 1990(abandoned); which is a continuation- in- part of 07/406,217 filed

FORWARDED SHEETS

September 12, 1989 which is a continuation-in-part of 07/655,579 filed March 18, 1991 which is a divisional of 07/179,100 filed April 8, 1988 (US Patent 5,013,649) which is a continuation- in- part of 07/028,285 filed March 20, 1987(abandoned) ;which is a continuation- in-part of 06/943,332 filed December 17, 1986 (abandoned) which is a continuation-in-part of 06/880,776 filed July 1, 1986, abandoned.

In the Claims:

Please add new claims as follows:

24. An isolated DNA molecule comprising a DNA sequence selected from the group consisting of:

- (a) nucleotides 1202 through 1543 of Figure 2;
- (b) nucleotide 1252 through 1543 of Figure 2;
- (c) nucleotides 1279 through 1626 of Figure 3;
- (d) nucleotides 1333 through 1626 of Figure 3;
- (e) nucleotides encoding amino acids 283 through 396 of Figure 2;
- (f) nucleotides encoding amino acids 299 through 396 of Figure 2;
- (g) nucleotides encoding amino acids 293 through 408 of Figure 3;
- (h) nucleotides encoding amino acids 311 through 408 of Figure 3; and
- (i) naturally occurring allelic sequences and equivalent degenerative codon sequences

of (a) through (h).

25. An isolated DNA molecule comprising a DNA sequence of nucleotides 1202 through 1543 of Figure 2.

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26. An isolated DNA molecule comprising a DNA sequence of nucleotide 1252 through 1543 of Figure 2.
27. An isolated DNA molecule comprising a DNA sequence of nucleotides 1279 through 1626 of Figure 3.
28. An isolated DNA molecule comprising a DNA sequence of nucleotides 1333 through 1626 of Figure 3.
29. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 283 through 396 of Figure 2.
30. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 299 through 396 of Figure 2.
31. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 293 through 408 of Figure 3.
32. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 311 through 408 of Figure 3.
33. An isolated DNA sequence encoding BMP-2 protein which hybridizes to a DNA sequence of claim 30 under stringent hybridization conditions.
34. An isolated DNA sequence encoding BMP-4 protein which hybridizes to a DNA sequence of claim 32 under stringent hybridization conditions.
35. A vector comprising a DNA molecule of claim 24 in operative association with an expression control sequence therefor.
36. A vector comprising a DNA molecule of claim 33 in operative association with an expression control sequence therefor.

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37. A vector comprising a DNA molecule of claim 34 in operative association with an expression control sequence therefor.
38. A host cell transformed with a vector of claim 35.
39. A host cell transformed with a vector of claim 36.
40. A host cell transformed with a vector of claim 37.
41. An isolated DNA molecule comprising a DNA selected from the group consisting of ATCC deposits 40345 and 40342.
42. A method for producing a BMP-2 protein said method comprising the steps of:
(a) culturing a host cell transformed with a DNA sequence of claim 33, and;
(b) recovering said BMP-2 protein.
43. A method for producing BMP-4 protein, said method comprising the steps of:
(a) culturing a host cell transformed with a DNA sequence of claim 34, and;
(b) recovering said BMP-4 protein.
44. A BMP-2 made by the method of claim 42.
45. A purified BMP-2 polypeptide comprising an amino acid sequence encoded by a DNA sequence comprising nucleotides 1202 through 1543 of Figure 2.
47. A purified BMP-2 polypeptide comprising an amino acid sequence encoded by a DNA sequence comprising nucleotides 1252 through 1543 of Figure 2.
48. A purified BMP-2 protein comprising an amino acid sequence of amino acid 283 through 396 of Figure 2.
49. A purified BMP-2 protein comprising an amino acid sequence of amino acid 299 through 396 of Figure 2.

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An antibody to a purified BMP-2 polypeptide of claim 47.

REMARKS

Claims 1-23 as originally filed remain in the application and claims 24-50 have been added.

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Respectfully submitted,

Ellen J. Kapinos

Ellen J. Kapinos
Reg. No. 32,245
Attorney for Applicants
Telephone 617 665-8857
Telefax 617876-5851

Correspondence address:
Kay Brady
American Home Products Corp.
Patent Dept. 2B
One Campus Drive
Parsippany New Jersey 07054

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